10/534356

### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization

Organization
International Bureau





### (43) International Publication Date 17 June 2004 (17.06.2004)

#### **PCT**

## (10) International Publication Number WO 2004/051181 A1

(51) International Patent Classification7:

G01B 7/012

(21) International Application Number:

PCT/GB2003/005317

(22) International Filing Date: 5 December 2003 (05.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0228368.7

5 December 2002 (05.12.2002) GB

(71) Applicant (for all designated States except US): REN-ISHAW plc [GB/GB]; New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).

(72) Inventors; and

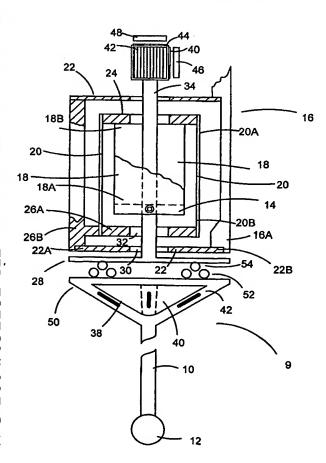
(75) Inventors/Applicants (for US only): McMURTRY,

David, Roberts [GB/GB]; Park Farm, Stancombe, Dursley, Gloucestershire GL11 6AT (GB). McFARLAND, Geoffrey [GB/GB]; The Manse, 22 Church Road, Upper Cam, Dursley, Gloucestershire GL11 5PG (GB).

- (74) Agent: JACKSON, John, Timothy et al; Renishaw plc, Patent Department, New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: PROBE FOR HIGH SPEED SCANNING



(57) Abstract: A measurement probe (5) which comprises a housing (16) for mounting on an arm (6) of a coordinate positioning apparatus (2) and a stylus (10) mounted on a stylus support member (28). The stylus (10) and the stylus support member (28) are deflectable with respect to the housing (16). A first transducer system (40-48) measures movement of the stylus support member (28) relative to the arm (6) of the coordinate positioning apparatus (2). A second transducer system (38) measures movement of the stylus tip (12) relative to the stylus supporting member (28). A measurement of total stylus deflection is achieved by combining data from the first and second transducer systems.